

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY
NORTHERN REGION

FAIRBANKS AREA

FOREST LAND USE PLAN

High Standards Spruce
NC-1508-F

ADL 418740

February 2013

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I. INTRODUCTION

A. Purpose

The purpose of this Forest Land Use Plan (FLUP) is to provide sufficient information for reviewers to ensure that the best interest of the State will be served by the Department of Natural Resources (DNR), Division of Forestry, Fairbanks Area, offering this proposed timber sale. This FLUP deals with site specific considerations of the sale. The boundaries and precise volume of the sale may be refined if and when the sale is developed. Site specific research has been completed on title considerations, land classifications, applicable land management plans, appropriate silvicultural techniques, regulatory and statutory requirements, and physical conditions that apply to the proposed sale area. The proposal is for the harvest of approximately (+/- 10%) 10.6 acres of land that is predicted to yield approximately (+/- 10%) 186 CCF of spruce saw logs. The sale design may be altered to mitigate potential conflicts. It will be the responsibility of the Forester-In-Charge to ensure that any purchaser of this sale harvests timber per the sale design and sale contract provisions and adheres to Alaska Forest Resources and Practices Act (AFRPA) best management practices.

The public is invited to comment on any aspect of this proposed timber sale with regards to the Preliminary Finding and Decision (AS 38.05.035). Comments should be mailed to the Division of Forestry, 3700 Airport Way, Fairbanks, Alaska 99709 or by email at brian.young@alaska.gov. Comments must be received at the Division of Forestry no later than March 22, 2013 in order to be considered in the Final Decision of whether the sale will be held in whole or in part. To be eligible to appeal the final decision, a person must have provided written comment by March 22, 2013.

B. Five-Year Sale Schedule

The general area and timber type that this proposed sale occupies has been shown as a potential sale area in the current Five-Year Schedule of Timber Sales (FYSTS) for Fiscal Years 2012-2016 as required by AS 38.05.113. It has been listed in previous schedules.

C. Location

The proposed sale is located roughly 17 miles west of Fairbanks, within the Fairbanks North Star Borough and within the boundaries of the Doyon Region. Coastal Zone Management considerations do not apply. The proposed sale area is located within Sections 5, 6, and 7, Township 1 South Range 4 West, Fairbanks Meridian. The sale area is shown on the attached map and is within the United States Geological Survey 1:63,360 Quadrangle map titled Fairbanks D-3. The tract is accessed from Fairbanks by driving southwest on the Parks highway to the Old Nenana Highway. Once on the Old Nenana Highway, drive 2.2 miles to the Standard Creek logging road. Drive the 11 miles to the Standard East road. Once on Standard East drive 6.3 miles to the southern boundary of the sale.

D. Title, Classification and Other Active or Pending Interests

The acquisition for the land in Sections 5, 6, and 7 are based on General Selection 34. The title was transferred by patent 50-73-0010 and 50-81-0171. There are no title

restrictions on the area. The primary land classification for the area is Forestry per Classification Order NC-82-065. The proposed sale area is within Unit 4C of the Tanana Valley State Forest (TVSF) and State of Alaska Classified Forest Lands. There are no other special conditions applicable to this area.

E. General Timber Sale Program Objectives

1. Develop the State's Renewable Resources

To follow the DNR's constitutional mandate to encourage the development of the State's renewable resources, making them available for maximum use consistent with the public interest. Sustain and promote a healthy, long-term timber industry in the State, through providing a secure source of timber for harvest that produces raw materials for local manufacturing plants when practical while protecting other resources such as fish and wildlife.

2. Improve the State's Economy

To help the State's economy by providing royalties to the State in the form of stumpage receipts, as well as contributions to local economies through wages, purchases, jobs, and business.

3. Improve Forest Health

To improve forest growth and vigor by harvesting mature and or declining stands and replace them with new healthy regenerating stands. The stand replacement will be accomplished while protecting and maintaining other resource values. The actions authorized under this decision will follow the constitutional mandate of sustained yield and shall adhere to multiple use management as described in the Tanana Basin Area Plan.

4. Improve Wildlife Habitat

Meet the statutory wildlife management objectives for the TVSF (AS 41.17.400(e)) that provides for the economic development of other natural resources while protecting habitat needs of wildlife resources necessary to maintain or enhance public use and economic benefits.

II. LEGAL AUTHORITY

The Division of Forestry is taking this action under the authority of AS 38.05.035 (e) (Best Interest Finding); AS 38.05.110-120 (Alaska Land Act Statutes); 11 AAC 71 (Timber Sale Statutes and Regulations); AS 41.17.010-.950 and 11 AAC 95 (Forest Resources and Practices Statutes and Regulations).

III. ADMINISTRATIVE RECORD

The case file ADL 418740 and the Tanana Basin Area Plan constitute the administrative record for this finding.

IV. DISCUSSION OF ISSUES

A. Physical Characteristic of the Sale Area

1. Topography

The site is on a southwest facing moderately sloping hill to the east of the Minto Flats State Game Refuge. Elevation ranges from 800 feet to about 1050 feet. The terrain is relatively steep but generally even throughout the unit. General Slope angle is at approximately 20 percent.

2. Soils

Soils in this sale area are classified as a Steese Silt Loam. Steese soils are productive upland silt loam soils that have formed in loess deposits. Weathered bedrock can often be found 20 to 40 inches in Steese Silt loams profiles on slopes 20 to 30 percent.

3. Waterbodies

There are no defined drainages within the proposed unit boundaries. The closest water bodies are some unnamed ponds 1.2 miles south of the unit and Goldstream creek which is approximately 2.5 miles south of the sale boundary. The State Department of Environmental Conservation had no comment on this sale during review of the FY 2012-2016 FYSTS. The sale area presents no obstacles that would prevent implementation of the best management practices of the AFRPA to maintain water quality.

4. Stand Conditions

The timber stand and proposed harvest unit consists of 170 year old white spruce. The spruce component occupies over 90% of the site and is showing some signs of budworm infestation. Understory vegetation includes high bush cranberry, rose and pockets of heavy alder. The moss depth averages 4 inches. The grass component is light in this stand and is estimated to cover 5% of the area. This unit has approximately 56 merchantable spruce trees per acre. Basal area is approximately 46 square feet/acre.

B. Historic and Current Land Use

The historic uses of land in the general area have been logging, hunting, trapping, and general trail use. The current uses of the area are recreation, tourism, wood cutting, hunting and trapping. Numerous dog mushing and snow machine trails can be found in the area, primarily south of the unit. There are also a number of private in-holdings within the Tanana Valley State Forest located in the vicinity the proposed sale. A minimum buffer of 200 feet from the timber sale to any private property will occur as stipulated in the Tanana Valley State Management Plan.

Wildlife Habitat

Wildlife typical of the interior can be found in this area and during ground reconnaissance moose, grouse, and hares were observed. Moose damage in the form of bark stripping on some of the aspen trees was also observed. No raptor nests were observed within the proposed sale area. Should an eagle nest tree be discovered in the sale area, the nest tree will be marked on the ground and a 330 foot no-harvest radius will be established in order to protect the tree. No critical habitat has been identified for this area (TVSF Management Plan), nor has any become apparent during ground reconnaissance.

Treatments proposed for this stand are projected to enhance habitat conditions for ruffed grouse, moose, voles, hares, and ultimately, lynx, marten and fox. In the past, Alaska Department of Fish and Game, Division of Wildlife Conservation (ADFG) and now the DNR Office of Habitat Management and Permitting (OHMP) have recommended managing for as much diversity as possible when prescribing harvest unit size, shape and position to mimic the results of wildfire or other stand replacement phases such as insect outbreaks or flood events. To accomplish these objectives, snags will be retained to provide late-successional wildlife habitat for hole nesting birds, woodpeckers, small mammals, and other species requiring perching habitat. The units will be laid out with uneven edges along and between timber types. This layout design will create varied edge effects which are beneficial to many wildlife species.

C. Fisheries and Water Quality

During review of the FY 2012-2016 FYSTS OHMP had no particular fish or wildlife concerns with the proposed access road or harvest unit. Best management practices will be implemented to ensure water quality standards in all water courses. There is no reasonable expectation that operations on this level will have deleterious effects on fish habitat or water quality in Goldstream Creek or valley bottom wetlands.

D. Subsistence

The sale area lies within the Fairbanks Non-subsistence Area. The proposed sale of timber is anticipated to have no deleterious effects on subsistence activities. Subsistence activities of fishing, trapping, hunting and gathering of berries and other non timber forest products may occur on State owned lands.

E. Recreation and Tourism

Recreation use of this particular area is high due to the existence of all season forest roads, winter and summer trails. Primarily it consists of hunting and trapping activity but, snowmachining, dogmushing, skiing, and biking are popular along a winter trail located to the south west of the proposed unit. During the hunting season in the fall the all season roads are used heavily. Depending on the level of road snow cover, hunting continues for grouse and hares through the winter.

F. Scenic Resources

The sale is located midslope on a southwest facing slope. It will not be visible from any major roads but it will be visible from the standard east logging road and it may be visible from the old Saulich trail to the south of the unit. The harvest may be visible from private property located on a hillside above the proposed sale. Leave trees and residuals will somewhat obscure the harvest area and help blend the cut border with existing landscape.

G. Cultural Resources

The TVSF Management Plan does not list any historic cultural or archaeological sites in the vicinity of the proposed harvest. The State Office of History and Archaeology (OHA) do not list any sites on its inventory. During the course of activities associated with this timber sale, cultural and/or paleontological resources may be inadvertently discovered. Should such discovery occur, these sites shall be protected

from further disturbance and OHA will be contacted immediately so that compliance with state laws governing cultural resources may begin.

Under the Alaska Historic Preservation Act (AS 41.35), all burials on state land are protected. If burials or human remains are found, all land altering activities that would disturb the burial or remains shall cease and measures taken to protect it in place. OHA and a law enforcement officer will be notified immediately to ensure that proper procedures for dealing with human remains are followed.

H. Sustained Yield and Allowable Cut

The Alaska Forest Resources and Practices Act (AS 41.17.060 (c)) and Article VIII Sec. 4 of the State Constitution require that the State forest land be managed on a sustained yield basis. Sustained yield is defined in the Alaska Forest Resources and Practices Act (AS 41.17.950(25)):

“Sustained Yield” means the achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of forest land and water without significant impairment of the productivity of the land and water, but does not require that timber be harvested in a non-declining yield basis over a rotation period.

The Annual Allowable Cut (AAC) is the amount that can be harvested from forest land managed for forestry purposes in a year under sustained yield management. The AAC in the Fairbanks Area is based on a ten-year average as determined by the Parsons and Associates, Inc. report titled “Tanana State Forestry Lands Periodic Sustained Yield Analysis”. This sale complies with sustained yield/allowable cut principles outlined in the Fairbanks Area Five-Year Schedule of Timber Sales for FY 2012-2016. The AAC for the Fairbanks Management Area is approximately 6,260 acres. The AAC will not be exceeded for this proposed sale.

I. Silvicultural Prescription

1. Stand Silvics

The merchantable tree species here is white spruce. Data and research on regeneration and growth characteristics of these species are compiled within the Resource Analysis of the Tanana Valley State Forest (TVSF) Management Plan. The harvest and reforestations systems available in Interior Alaska are also reviewed and listed in the Resource Analysis. The results of the public and agency discussions for harvest and reforestation are discussed in the TVSF Management Plan. Silvicultural harvest systems that facilitate even-aged (natural) management are generally preferred. They mimic the ecological impact of wildfire and other disturbances and result in the greatest increase in site productivity. Even-aged management is normally accomplished through clear-cuts, patch cuts, and heavy partial cuts (such as seed tree or shelterwood systems) which open up the site to maximum solar gain. This management system results in the greatest production of both young hardwood, that is important to wildlife, and the spruce understory which is valuable years later as timber. Even-aged management techniques are utilized to provide young, vigorously growing stands in juxtaposition to older, undisturbed stands. Such placement of harvest units can optimize natural seeding and the edge effect.

2. Specific Management Objectives

The largest, oldest and most valuable white spruce trees are being affected the most through needle defoliation and lateral branch dieback. The increment growth of these trees is beginning to decline due to the moss thickness and cooling of soil temperature. Attempt to utilize the current commercial value of this timber stand before the spruce budworm inflicts further damage and further individual tree degradation occurs. Attempt to improve vigor by replacing the aging older white spruce with younger faster growing trees. Spruce smaller than 9 inches would be reserved from harvest as well as all aspen. These trees will provide some cover for scenic attributes and regeneration sources. Provide a seed source from white spruce sawtimber outside the sale boundary. Maintain the hardwood component to provide wildlife trees and as a seed source. Return the site to a productive, naturally even-aged, diverse mixed-species stand at an equal or greater basal area than currently exists. White spruce occupies 90% of the stand. It is expected that the hardwood component will increase to 40%. The objective is to maintain a white spruce component of 60% or better. It is reasonable to assume that these objectives will be realized under the recommended prescription with some supplemental planting of white spruce if necessary.

3. Harvest Methods

The sale will be harvested by a clear-cut system with reserves silvicultural system. White spruce trees nine inches dbh and larger will be removed. Snags, spruce less than 9 inches and all hardwoods will not be cut. Residual trees will be protected from damage during harvest operations. Harvesting will be by the whole tree yarding system. Slash disposal at the landings will be by burning or by salvage for fuelwood use.

4. Regeneration

Regeneration of white spruce occurs only from seeds. White spruce trees generally produce some level of seed crop every three to five years and large seed crops every five to seven years. Budworm is moderate in this area and cone production has been minimal. When the budworm infestation subsides white spruce from within and adjacent to the units are expected to provide seed. Residual and adjacent aspen will also supply seed and some sprouting of aspen will also occur. A regeneration survey will be conducted three years after any harvest. If the survey indicates inadequately stocked areas greater than ½ acre and totaling 2 acres then hand planting of white spruce seedlings will be performed on non-stocked areas. The goal for regeneration is to achieve a minimum of 450 evenly distributed trees per acre. Due to minimal white spruce cone production, it is anticipated that hand planting of seedlings will be necessary for this unit.

J. Transportation

The planned access to the proposed sale is by existing primary roads located north of the Parks Highway. The first 11 miles are along Standard Creek road which leads to the Standard East logging road. Travelling 6.3 miles northeast on the Standard East road leads to the southern boundary of the sale. The 11 miles of existing primary road

will be maintained to the standards set out in the AFRPA. The 6.3 miles of existing secondary road will be maintained to the standards set out in the AFRPA.

Erosion

There are two soil erosion concerns: surface erosion and mass wasting of soil and debris. Road construction and poor maintenance of roads primarily causes surface erosion. To avoid erosion, debris will be placed back onto skid trails and water bars installed if necessary. Harvesting will be suspended during periods of thawing soil conditions to assure there is minimal soil disturbance. The location of skid trails will optimize skidding distances and provide for adequate landing areas. The other aspect of erosion (mass wasting and debris avalanches) normally occurs on slopes of more than 70 percent therefore is not a particular concern because the proposed timber sale is on mostly flat ground.

K. Mining

This sub-unit of the TVSF has moderate mineral potential however; there are no mining claims within the sale boundary or proposed access routes. More detailed information on subsurface resource use is found in the TVSF Management Plan. Other than providing access, and sharing some of the same access roads, this sale will have no impact on the potential mining resources or mining activity in this area. Four miles to the northwest, considerable seismic survey work has been done in search of natural gas, but no development has occurred.

L. Materials

No rock materials will be required for the construction of access roads.

M. Economics

In addition to generating royalties to the State's general fund, the proposed sale will create economic benefits to the Fairbanks North Star Borough and to other locations in Alaska. The Borough business community will receive direct economic benefits from providing support services for the operators through sales of fuel, food, housing, medical and miscellaneous supplies. The sale is expected to benefit the local economy by providing jobs. The residents of the Borough will receive an indirect benefit through taxes paid to cities and the Borough by the operator and employees during the course of the timber harvest operation.

The sale is expected to benefit the local economy by providing jobs. It will have a positive impact on local employment by generating significant man-hours of work associated with the harvest and transportation of wood products from this sale.

Additionally the public may benefit from access to additional personal use fuel wood areas.

V. MARKET CONDITIONS

Interior Alaska has a growing demand for biomass and firewood and a sustainable market for saw timber. Heating oil continues to be more costly in the interior than the national average therefore residents are looking for an alternative and the only affordable one is wood. Local businesses are currently producing wood pellets as an alternative to traditional firewood. This market addresses an ongoing air quality issue in the Fairbanks

area because these manufactured pellets produce almost no emissions. As this market continues to grow, the demand for material will increase. Other businesses are also looking into the use of biomass as a feedstock for producing electricity and heating alternatives in rural Alaska.

With improvements in wood stove technology for reducing emissions, firewood is also a viable alternative to high cost heating oil. The demand for firewood has steadily increased in the past few years and will likely continue to increase. Local suppliers of firewood continue to have a demand for accessible timber sales to deliver their product.

Residential construction and commercial operations throughout Alaska still need sawn products to support their operations. Local businesses that produce these products continue to pay for the delivered material.

These three markets create jobs in the forest products industry. Loggers, log truck drivers, commercial firewood cutters and mill workers all benefit from a sustainable timber market. This sale will provide the material needed to sustain these industries. As the economy continues to rebound there will be more demand for the products that this sector of the labor force provides.

VI. ALTERNATIVE ACTIONS

There are four possible alternatives to consider for this sale. A discussion of each of the four alternatives follows:

1. **To continue the sale(s) as proposed.**

This alternative meets the objectives of the Five-Year Schedule of Timber Sales and DNR'S constitutional mandate. It also meets the silvicultural objective of improving forest vigor, provides for a value-added end product and creates additional jobs in Alaska due to the combination of road building, logging, and trucking. This alternative also complies with the management objectives of the TVSF Management Plan for Unit 4C.

2. **To modify the sale(s) by making them smaller or larger.**

The proposed sale unit is a logical setting for typical commercial logging equipment in Interior Alaska. The size of the sale is designed to be large enough to be economically viable considering access development and mobilization costs and distance to processing facilities. Sales of this size are appropriately balanced to maintain other resource values as well as provide economic benefits to the Tanana Valley.

3. **Defer the sale of this timber to a later date.**

Deferring harvest to a later date would fail to meet many of the objectives of the sale program. One of the main objectives is to make State-owned timber consistently available to the timber industry.

4. **Do not offer this timber for sale.**

This alternative would result in not meeting any of the objectives outlined for this management action. Utilization of the forest resource would not be achieved. There

would be no significant contribution to the State and local economies. This alternative would delay the management objectives planned for the area, deny making a source of raw materials available to the local wood products industry, and would delay the harvest of mature trees, prior to the onset of disease or insect infestation.

VII. PRELIMINARY FINDING AND DECISION

The purpose of this decision is to determine if the Department of Natural Resources, Division of Forestry, will make available timber located in Sections 5, 6, and 7, Township 1 South Range 4 West, Fairbanks Meridian. After due consideration of all pertinent information and alternatives, the DNR has reached the following **Preliminary Decision: To offer the sale as proposed in Alternative 1.** In addition, the DNR finds that this preliminary decision satisfies the objectives as stated in this document and it is in the best interest of the State to proceed with this action.



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2/12/2013

(Date)

